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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,648	10/25/2001	Paul M. Sand	1759.17238-FOR	6512

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RYAN KROMHOLZ & MANION, S.C.
POST OFFICE BOX 26618
MILWAUKEE, WI 53226

EXAMINER

COOLEY, CHARLES E

ART UNIT PAPER NUMBER

1723

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,648

Applicant(s)

SAND, PAUL M.

Examiner

Charles E. Cooley

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Drawings

1. The drawing correction filed 22 DEC 2003 is approved.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 8, and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Murray (US 5,348,391).

The patent to Murray (US 5,348,391) discloses a mixer comprising a receptacle 24 for receiving bone cement components, the receptacle having a distal tip (proximate 14); a mixing element 74 insertable into the receptacle; an actuator for the mixing element having a drive member 48 and a driven member 64 coupled to the drive member 48 and removably coupled to the mixing element (col. 4, lines 46-55); a stand 12 to hold the receptacle 24; the stand including a neck 14 sized and configured to couple to the distal tip of the receptacle (col. 3, lines 29-32 and col. 3, line 65 through col. 4, line 1); the mixing element 74 being a rotatable apertured paddle rotated by the drive member 48 to mix the bone cement components; a plunger 26 in the receptacle; a dispenser attachable to the receptacle to dispense the mixed bone cement (col. 6, lines 43-46); the actuator including a planetary gear drive train system (Figs. 1-2);

linkage 38 between the drive member 48 and the driven member 64; and the drive member 48 being operable manually.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murray (US 5,348,391) in view of Seddon (US 5,494,349).

Murray discloses the mixing element with a single aperture and not a plurality of apertures. The patent to Seddon discloses a bone cement mixer of the planetary type wherein a manually driven mixing paddle 7 may have a single vane or multiple vanes with apertures between the vanes (col. 3, lines 11-18 and Figure 2). It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the mixing paddle of Murray with multiple vanes and corresponding apertures as disclosed by Seddon for the purpose of generating the most thorough mixing of the components (col. 3, lines 11-13).

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray (US 5,348,391) in view of Chan (US 4,973,168).

Murray discloses a dispenser attachable to the receptacle to dispense the mixed materials as noted above but does not disclose the type of dispensers recited in instant claims 9-11. The patent to Chan discloses a bone cement mixer having a mixing receptacle 7, 9 which includes a dispenser attachable to the receptacle to dispense the mixed materials. The dispenser comprises a fitting 120 attached to the distal tip (proximate 7) of the receptacle which includes a nozzle 121a, a tube 121b, or a pressurizer 140 (Figs. 10-12). In view of the suggestion in Murray that the mixed bone cement is flowed to an implant site (col. 6, lines 46-48), it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the mixer of Murray with a dispenser of the type taught by Chan for the purpose of adapting the dispenser to the particular type of operation being performed which is suitable for the particular opening of the implant site and to thereby inject the mixed bone cement into the implant site (col. 13, lines 48-52 and col. 14, lines 10-40).

Response to Amendment

7. Applicant's arguments filed 22 DEC 2003 have been fully considered but they are not persuasive.

Contrary to Applicant's assertion, the patent to Murray '391 teaches the recited device in which a stand includes a neck sized and configured to couple the distal tip of the receptacle as explained in the rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art shows stands for receptacles.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.

A handwritten signature in cursive script, appearing to read "Charles", followed by a long, horizontal, wavy flourish.

Charles E. Cooley
Primary Examiner
Art Unit 1723

29 January 2004